Atty. Docket No.: 124239-00101

Reply to Office Action of May 20, 2005

**Amendments to the Claims** 

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of Claims

Claims 1-68 (canceled).

69. (New) A Computer method for generating a stroboscopic representation from

images in at least one original video sequence, comprising:

extracting a foreground portion from the images to provide a foreground (a)

sequence;

selecting at least one feature to be included in the stroboscopic sequence from the (b)

foreground sequence to provide a foreground selected sequence;

(c) choosing a common focal plane;

(d) synthesizing the foreground selected sequence on a background sequence, using

warping of foreground features onto the chosen common focal plane, to provide a synthesized

sequence; and

rendering a stroboscopic representation from the synthesized sequence as a video (e)

including multiple representations of at least one foreground feature frozen at triggering instants.

70. (New)The method according to claim 69, wherein the images are from a fixed

field of view.

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71. (New) The method according to claim 69, wherein step (a) comprises estimating

camera motion in making the original video sequence.

72. (New) The method according to claim 71, wherein the camera motion is estimated

with sensors equipping the camera.

73. (New) The method according to claim 71, wherein estimating camera motion is

carried out using video processing techniques.

74. (New) The method according to claim 69, wherein step (b) comprises selecting at

a fixed frame interval.

75. (New) The method according to claim 69, wherein step (b) comprises selecting at

clocked time intervals.

76. (New) The method according to claim 69, wherein step (b) comprises selecting at

specified foreground events.

77. (New) The method according to claim 69, wherein step (b) comprises accepting

input for the feature to be selected.

78. (New) The method according to claim 69, wherein step (c) comprises choosing a

field of view for the stroboscopic representation.

79. (New) The method according to claim 78, wherein the field of view is the same as

an original field of view.

80. (New) The method according to claim 78, wherein the field of view is greater

than an original field of view.

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81. (New) The method according to claim 78, wherein the field of view encompasses all of a foreground movement.

82. (New) The method according to claim 78, wherein the field of view is less than an original field of view.

83. (New) The method according to claim 69, wherein step (e) comprises rendering the stroboscopic representation as a still image and converting the still image to video.

84. (New) The method according to claim 83, wherein converting comprises scanning.

85. (New) The method according to claim 84, wherein scanning comprises accepting input for at least one scanning parameter.

86. (New) The method according to claim 85, wherein the scanning parameter is one of scanning direction, scanning speed and focal length.

- 87. (New) The method according to claim 85, wherein the input is from a joy stick device.
- 88. (New) The method according to claim 69, wherein step (e) comprises rending multiple representations of at least one foreground feature, with the representations being spaced apart.
- 89. (New) The method according to claim 88, wherein the spacing of the representations is according to a function of time.

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90. (New) The method according to claim 88, wherein the spacing of the representations corresponds to their actual spatial travel.

- 91. (New) The method according to claim 88, wherein the spacing of the representations is for spatially contiguously unrolling an action of an object turning on an axis.
- 92. (New) The method according to claim 69, wherein the background sequence represents a synthetic background.
- 93. (New) The method according to claim 69, wherein step (e) comprises controlling foreground feature persistency.
- 94. (New) The method according to claim 93, wherein controlling is for older representations of a foreground feature as a function of time to appear increasingly transparent.
- 95. (New) The method according to claim 69, wherein step (e) comprises assigning a distinctive brightness/color to at least one foreground feature.
- 96. (New) The method according to claim 95, wherein the brightness/color is selected as a function of time.
- 97. (New) The method according to claim 69, wherein step (e) comprises 3-dimensional reconstruction of the stroboscopic representation.
- 98. (New) The method according to claim 69, wherein the at least one original video sequence is of a sports event.
- 99. (New) The method according to claim 69, further comprising broadcasting the stroboscopic representation.

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100. (New) The method according to claim 69, further comprising delivering the stroboscopic representation over the Internet.

- 101. (New) A system for generating a stroboscopic representation from images in at least one original video sequence, the system comprising:
- (a) means for extracting a foreground portion from the images, resulting in a foreground sequence;
- (b) means for selecting from the foreground sequence at least one feature to be included in the stroboscopic sequence, resulting in a foreground selected sequence;
  - (c) means for choosing of a common focal plane;
- (d) means for synthesizing the foreground selected sequence on a background sequence, by warping said at least one feature onto said chosen common focal plane, resulting in a synthesized sequence; and
- (e) means for rendering the stroboscopic representation from the synthesized sequence as a video including multiple representations of at least one foreground feature frozen at triggering instants.
- 102. (New) A system for generating a stroboscopic representation from images in at least one original video sequence, the system comprising:
- (a) an extraction module extracting a foreground portion from the images, resulting in a foreground sequence;

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a triggering module for selecting from the foreground sequence at least one (b) feature to be included in the stroboscopic sequence, resulting in a foreground selected sequence;

a synthesis module for choosing a common focal plane and synthesizing the (c)

foreground selected sequence on a background sequence by warping said at least one feature

onto said chosen common focal plane, resulting in a synthesized sequence; and

(e) a rendering module for rendering the stroboscopic representation from the

synthesized sequence as a video including multiple representations of at least one foreground

feature frozen at triggering instants.

(New) A system for rendering a stroboscopic representation from images in a 103.

video sequence, comprising a processor which is instructed for:

(a) extracting a foreground portion from the images to provide a foreground

sequence;

selecting at least one feature to be included in the stroboscopic sequence from the (b)

foreground sequence to provide a foreground selected sequence;

(c) choosing a common focal plane;

(d) synthesizing the foreground selected sequence on a background sequence, using

warping of foreground features onto the chosen common focal plane, to provide a synthesized

sequence; and

(e)

rendering a stroboscopic representation from the synthesized sequence as a video

including multiple representations of at least one foreground feature frozen at triggering instants.

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